

connected to the VCO for dividing a frequency of the DPLL signal.

- [c6] 6.The control circuit of claim 1 wherein the controller further sets charge pump currents of the frequency detector and the phase detector according to the target frequency.
- [c7] 7.The control circuit of claim 1 wherein the controller determines the target frequency referencing a track number and a media type.
- [c8] 8.The control circuit of claim 1 wherein the controller further sets an RF equalizer signal and a differential phase detector (DPD) equalizer signal according to the target frequency.
- [c9] 9.The control circuit of claim 8 wherein the controller references tabulated data to correspond the target frequency with the second control signal, the RF equalizer signal, and the DPD equalizer signal.
- [c10] 10.The control circuit of claim 1 wherein the optical disk drive operates in a constant angular velocity mode.
- [c11] 11.The control circuit of claim 1 being incorporated in a compact disk (CD) drive or a digital versatile disk (DVD) drive.
- [c12] 12.A method for controlling an optical disk drive, the method comprising:
monitoring a data phase-locked loop (DPLL) signal;
generating a first control signal based on an eight-to-fourteen modulation (EFM) signal and the DPLL signal;
generating the DPLL signal based on the first control signal when the optical disk drive is in a non-seek mode;
calculating a target frequency for the DPLL signal;
generating a second control signal based on the target frequency; and
generating the DPLL signal based on the second control signal when the optical disk drive is in a seek mode.
- [c13] 13.The method of claim 12 further comprising:
detecting when a rotation speed of a spindle of the optical disk drive changes;
and

